



California Regional Water Quality Control Board

San Diego Region

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Secretary for
Environmental
Protection

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TO: Barbara L. Evoy
Division Chief
Division of Financial Assistance
State Water Resources Control Board

In reply refer to:
PLRP:77-0120.02:OTBRE

FROM: John Robertus
Executive Officer
SAN DIEGO REGIONAL WATER QUALITY CONTROL BOARD

DATE: August 26, 2003

**SUBJECT: REQUEST FOR DISBURSEMENT OF FUNDS FROM THE STATE
WATER POLLUTION CLEANUP AND ABATEMENT ACCOUNT**

The purpose of this memo is to request \$54,000 in funding from the State Cleanup and Abatement Account for technical work on developing cleanup levels for contaminated sediment at several locations in San Diego Bay. This request is to secure another year of funding for Dr. Michael Martin to continue his work on NASSCO and Southwest Marine, as well as other contaminated marine sediment sites on San Diego Bay. In January 2002, the Regional Board applied for and received \$54,000 from the State Cleanup and Abatement Account to fund a contract with the California Department of Fish and Game (Contract No. 01-251-190-0 DFG) to provide technical expertise and recommendations to the Regional Board for the assessment of public health and ecological risks posed by the contaminated sediment in San Diego Bay. During that fiscal year, Dr. Michael Martin consulted with the Regional Board on a variety of sites, specifically NASSCO and Southwest Marine shipyards. Cleanup and Abatement Orders will be issued for NASSCO and Southwest Marine shipyards in February 2004. Dr. Michael Martin and Pat McLernon (retired annuitants currently working for the Department of Fish and Game) will perform the work once funding is approved.

The Regional Board has an excellent track record of assessing sites, identifying Responsible Parties, issuing Cleanup and Abatement Orders, and cleaning up contaminated sites. Figure 1 illustrates the history of successful cleanup projects in San Diego Bay.

The following information addresses the Funding Criteria, as described in Chapter 4.4 of the Administrative Procedures Manual.

California Environmental Protection Agency

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1. Agency name and address

The California Regional Water Quality Control Board, San Diego Region (Regional Board) is the agency requesting the funds. The Regional Board is located at 9174 Sky Park Court, Suite 100, San Diego CA, 92123.

2. The agency's authority to cleanup a waste

The Regional Board designates cleanup levels for contaminated bay sediment sites in accordance with the State Water Resources Control Board Resolution No. 92-49, Policies And Procedures For Investigation And Cleanup And Abatement Of Discharges Under Water Code Section 13304. Resolution No. 92-49 is a state policy that establishes policies and procedures for investigation and cleanup and abatement under Water Code Section 13304. The Resolution establishes the basis for determining cleanup levels of waters of the State and sediments that impact waters of the State.

Resolution No. 92-49 provides that the discharger(s) are required to cleanup and abate the effects of discharges..... "in a manner that promotes attainment of either background water quality, or the best water quality which is reasonable if background levels of water quality cannot be restored...". Alternative cleanup levels less stringent than background must, among other things, not unreasonably affect present and anticipated beneficial uses of waters of the State. The Resolution also includes procedures to investigate the nature and horizontal and vertical extent of a discharge and procedures to determine appropriate cleanup and abatement measures.

3. The waste discharged or potentially discharged

Site	Types of Discharge	Waste Types	Water Body Affected	Cleanup Actions Taken
BF Goodrich Aerostructures	Storm drain discharges associated with aero-space parts production	Solvents, Fuel, Metals, PCBs	F&G Street Marsh Wetlands and San Diego Bay	Cleanup and Abatement Order No. 98-08 issued on April 2, 1998. Sediment has been removed from storm drains. Weirs installed to catch sediment.
Solar Turbines	Storm drain discharges associated with aero-space parts production	Solvents, Fuel, Metals, PCBs	San Diego Bay	Sediment removed from storm drains. Free product is being removed by pumping.



Site	Types of Discharge	Waste Types	Water Body Affected	Cleanup Actions Taken
National Steel & Shipbuilding Company (NASSCO)	Discharges from repair and building of ships	TBT, PCBs, PAHs, TPH	San Diego Bay	Regional Board in process of preparing cleanup and abatement order requiring NASSCO to cleanup contaminated bay sediment. Sediment investigation activities are currently underway.
Southwest Marine	Discharges from repair and building of ships	TBT, PCBs, PAHs, TPH	San Diego Bay	Regional Board in process of preparing cleanup and abatement order requiring SWM to cleanup contaminated bay sediment. Sediment investigation activities are currently underway.
Mouth of Chollas Creek	Unknown. Site assessment underway.	Metals, Pesticides, Organics	San Diego Bay	Contaminated sediment site assessment currently underway.
Seventh Street Channel	Unknown. Site assessment underway.	Metals, Pesticides, Organics	San Diego Bay	Contaminated sediment site assessment currently underway.
Downtown Anchorage	Unknown. Site assessment underway.	Metals, Organics	San Diego Bay	Contaminated sediment site assessment currently underway.
Switzer Creek	Unknown. Site assessment underway.	Metals, Pesticides, Organics	San Diego Bay	Contaminated sediment site assessment currently underway.
B Street / Broadway Pier	Unknown. Site assessment underway.	PAHs	San Diego Bay	Contaminated sediment site assessment currently underway.

4. The location of the discharge and the impact on groundwater or surface water

Cleanup Site	Location	Impact on surface water / marine sediment
BF Goodrich Aerostructures	850 Lagoon Drive, Chula Vista	Toxicity, bioaccumulation and/or biomagnification of pollutants



Cleanup Site	Location	Impact on surface water / marine sediment
Solar Turbines	2200 Pacific Coast Highway, San Diego	Toxicity, bioaccumulation and/or biomagnificaion of pollutants
National Steel & Shipbuilding Company (NASSCO)	2798 Harbor Drive, San Diego	Toxicity, bioaccumulation and/or biomagnificaion of pollutants
Southwest Marine	2205 East Belt, San Diego	Toxicity, bioaccumulation and/or biomagnificaion of pollutants
Seventh Street Channel	Near intersection of 8th Street and Harbor Drive, San Diego	Toxicity, bioaccumulation and/or biomagnificaion of pollutants
Downtown Anchorage	Between Laurel St. and Hawthorn, San Diego	Toxicity, bioaccumulation and/or biomagnificaion of pollutants
Switzer Creek	Near the intersection of Harbor Drive & 10th Avenue, San Diego	Toxicity, bioaccumulation and/or biomagnificaion of pollutants
B Street / Broadway Pier	Between B Street and Broadway Piers, San Diego	Toxicity, bioaccumulation and/or biomagnificaion of pollutants

5. The threat to water quality and public health posed by the discharge

Bay bottom sediment contamination at the above sites poses a public health threat primarily from the potential for contaminants to bioaccumulate and biomagnify (i.e., through movement along the food chain to aquatic organisms that may be consumed by humans). Each site listed above has impacts that have the potential to be transferred to human receptors.

The potential threat to human health from contaminated sediments is through three principal pathways of exposure. The primary pathway, and by far the most significant, is human consumption of fish and shellfish contaminated by chemicals in the sediment through the processes of bioaccumulation and biomagnification. In addition to ingestion of organisms that have bioaccumulation of a pollutant, two other pathways of exposure to contaminated sediments are:

1. Direct contact with contaminated sediments by swimmers or divers
2. Incidental ingestion of contaminated sediment or associated water by swimmers or divers

6. The agency's available resources to perform the cleanup

The cleanup and remediation of contaminated marine sediment in San Diego Bay began in 1985 with the PACO Terminal copper cleanup and the Teledyne Ryan (Convair Lagoon) PCB cap. Since that time the Regional Board has issued ten Cleanup and Abatement Orders (CAO) for San Diego Bay and has obtained satisfactory cleanup at nine of these sites to date. Cleanup is pending at the remaining site, with a sediment cap scheduled for construction in



2004. The Regional Board is wrapping up Phase III and entering into Phase IV of its cleanup of San Diego Bay (see Figure 1). The Regional Board does not have any available contract funds for the work described in this memo.

7. Efforts made to secure alternative funding

John Anderson, Region 9's SLIC Program Manager, has consulted with State Board staff about the possibility of adding the Department of Fish and Game to the Regional Board's cost recovery account for the cases that are funded through the SLIC Program (BF Goodrich and Solar Turbines). State Board staff informed Mr. Anderson that the SLIC Program cannot appropriate funds for other agencies. We have also evaluated the possibility of funding this effort using reserves in the SLIC Program budget, but this funding source is insufficient.

8. Impact on the community or surrounding area if the project is not approved for funding from the CAA

The Regional Board's sediment quality assessment process is still in its developmental stages. Unfortunately, portions of San Diego Bay affected by bay bottom contaminated sediment require immediate attention and site cleanup decisions must be made while the methods for assessing aquatic dependent wildlife and human health risks are still evolving. Even when reliable methods and models have been established and an adequate decision-making framework exists, only experienced, qualified technical staff can competently apply and interpret the results of such models.

The technical resources of the Department of Fish and Game can be used to ensure both the validity of the bioaccumulation assessment protocols that are being established and the successful application of these protocols at specific sites. The likelihood of establishing a scientifically defensible procedure for assessing risks related to sediment contamination in the San Diego Region is clearly less without Dr. Martin's participation. The involvement of the Fish and Game Department is also expected to greatly enhance Regional Board staff's capability to apply these sediment quality assessment approaches that require understanding of complex issues involving the ecosystems of San Diego Bay and its adjoining wetlands.

9. The entity or individual responsible for the discharge of the waste

Since the sources of the contamination are various point, non-point and possibly historical point sources, there are a number of potential Responsible Parties, which include the US Navy, San Diego Unified Port District, City of San Diego, City of Lemon Grove, City of La Mesa, County of San Diego, Solar Turbines, Southwest Marine, NASSCO, and the California Department of Transportation (CALTRANS). Additional Responsible Parties may be determined through the site assessment and source analysis portions of the study. Some



pollutants (i.e. chlordane and PCBs) have been banned for several years and responsible parties may not be identified.

10. Opportunity to recover the cost of cleanup

The Regional Board will work to recover the costs from the potential Responsible Parties that include the US Navy, San Diego Unified Port District, City of San Diego, City of Lemon Grove, City of La Mesa, County of San Diego, Solar Turbines, Southwest Marine, NASSCO, and CALTRANS. The Responsible Parties will be compelled to enter into a cost recovery agreement with the Regional Board.

11. Efforts the agency will make to recover the costs from the responsible party

At the appropriate time the Regional Board will issue cost recovery letters to the Responsible Parties named in the CAO's requesting their participation in the cleanup and to recover the costs of the cleanup.

12. The steps the agency will take in conducting the cleanup or abatement (attach a work plan that provides enough detail to explain the project's course, including costs for each phase)

Sediment quality assessment is an integral component of the cleanup and abatement process and provides the basis for determination of cleanup levels. The cleanup and abatement methods being considered include:

Dredging – Cleanup to background levels

Dredging – Cleanup to levels needed to protect beneficial uses

No Action

A total of \$54,000 is requested to cover the services of a Staff Toxicologist (Dr. Michael Martin) and an Environmental Specialist (Pat McLernon). The "Estimated Budget" is given as follows:

PERSONAL SERVICES	Hours	Budgeted Amount
TASK 1 - Site Visits and Site Monitoring		
Environmental Specialist	50 Hours	\$1,600
Staff Toxicologist	50 Hours	\$2,000
TASK 2 - Coordination and Technical Meetings		
Environmental Specialist	100 Hours	\$3,200



Staff Toxicologist	110 Hours	\$4,400
TASK 3 - Expert Testimony on Project Staff Toxicologist	50 Hours	\$2,000
TASK 4 - Review and Comment on Documents Environmental Specialist	400 Hours	\$12,800
Staff Toxicologist	130 Hours	\$5,200
TASK 5 Coordination and Liaison Environmental Specialist	40 Hours	\$1,280
Sub-Total	930 Hours	\$32,480
Staff Benefits (32.1%)		<u>\$10,000</u>
TOTAL PERSONAL SERVICES		\$42,480
OPERATING EXPENSES (Per Diem and Travel)		\$3,000
EQUIPMENT		\$0
OVERHEAD (18.6%)		<u>\$ 8,460</u>
TOTAL		\$54,000

13. Evidence the local Regional Water Quality Control Board has issued a Cleanup and Abatement Order regarding the site

In the cleanup cases cited above, the Responsible Parties are in various stages of working with the Regional Board to perform the necessary site assessment work to determine cleanup levels and mitigation measures. A CAO will be issued once the site is fully assessed and all the Responsible Parties are identified.

14. Regional Water Quality Control Board participation in this request (attach a copy of the Regional Board's resolution of support)

The Regional Board's resolution of support is being considered at the September 10, 2003 Board Meeting. The adopted Resolution will be forwarded to you after this date.

The heading portion of this letter includes a Regional Board code number noted after "In reply refer to:" In order to assist us in the processing of your correspondence please include this code number in the heading or subject line portion of all correspondence and reports to the Regional Board pertaining to this matter.



Barbara L. Evoy
CAA Request

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August 26, 2003

If you have any questions regarding this request please contact Mr. Brennan Ott of my staff at (858) 268-5362 or Mr. Craig Carlisle of my staff at (858) 637-7119.

JHR:dtb:clc

Enclosures: (1) Figure 1: San Diego Bay Cleanup Time Line

